

REMARKS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 1, 3-10, 13-14, 16, 17, and 34 are pending in this application. Claim 1 is amended to include the features of dependent claim 2, and claim 2 is cancelled without prejudice or disclaimer.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1, 2, 13, 14, 16, and 34 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Madaffari et al. (U.S. Patent No. 5,589,799, herein Madaffari). Applicant respectfully traverses this rejection for the reasons detailed below.

Amended claim 1 recites a preamplifier circuit for amplifying an electrical signal from an electret condenser microphone transducer including “a series capacitor between an electret condenser microphone transducer output and a DC input of an amplifier, wherein the amplifier includes an input impedance circuit, including a pair of cross-coupled, small area PN junction diodes, which sets the input impedance of the amplifier as substantially equal to or greater than 1 GigaOhm, wherein the capacitor reduces current leakages by blocking a DC path from the electret condenser microphone transducer to the amplifier input.”

Madaffari describes a low noise amplifier circuit to be used with field effect transistors operating with low voltage sources.¹ The April 25, 2005 Office Action states that the Madaffari disclosure “comprises a preamplifier circuit including a capacitor (38) coupled in series between an electret based condenser microphone via input terminals (12 and 14).”² Accordingly, the April 25, 2005 Office Action seems to indicate that capacitor (38) is

¹ Madaffari, Column 1, lines 8-12.

equivalent to the “series capacitor between an electret condenser microphone transducer output and a DC input of an amplifier” recited in amended claim 1. However, the Applicant respectfully rebuts this indication.

The Applicant respectfully submits that the above-interpretation of capacitor (38) as equivalent to the “series capacitor” recited in amended claim 1 is erroneous and contrary to the understanding of one skilled in the art at the time of the invention. More specifically, the Applicant respectfully submits that one skilled in the art would recognize that capacitor (38) shown in Figure 1 of Madaffari is clearly placed after the DC input of the amplifier in Figure 1. One skilled in the art would recognize the DC input of the amplifier shown in Figure 1 is node 12, which is connected to the gate of the JFET (30). Since one skilled in the art would recognize node 12 as the DC input of the amplifier shown in Figure 1 of Madaffari, the capacitor (38) is not placed “between an electret condenser microphone transducer output and a DC input of an amplifier,” as recited in amended claim 1.

Further, because the capacitor (38) in Figure 1 of Madaffari is placed after the DC input of the Figure 1 amplifier, the capacitor (38) is unable to reduce leakage currents drawn from the DC input of the amplifier at node 12 where leakage current may be caused by the presence of a parasitic leakage resistance between node 12 and ground or Vdd. Therefore, Madaffari does not disclose, teach, or suggest that “the capacitor reduces current leakages by blocking a DC path from the electret condenser microphone transducer to the amplifier input,” as recited in amended claim 1.

In light of the above, the Applicant respectfully submits that Madaffari does not disclose, teach, or suggest each and every feature of amended claim 1. Accordingly, the Applicant respectfully requests that the rejection to claim 1 under 35 U.S.C. § 103(a) as unpatentable over Madaffari be withdrawn.

² April 25, 2005 Office Action, page 2, paragraph 3.

Further, Applicant respectfully submits that there is no motivation for or suggestion of modifying the circuit shown in Figure 1 of Madaffari to include “a series capacitor between an electret condenser microphone transducer output and a DC input of an amplifier,” “wherein the capacitor reduces current leakages by blocking a DC path from the electret condenser microphone transducer to the amplifier input.” Applicant notes that even when obviousness is based on a single prior art reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. *See B.F. Goodrich Co. v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Madaffari and Garcia et al (U.S. Patent No. 6,275,593, herein Garcia); claim 5 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Madaffari and Garcia; claims 6-10 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Madaffari in view of Wang (U.S. Patent No. 6,448,599) and Sun et al. (U.S. Patent No. 5,930,584, herein Sun); and claim 17 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Madaffari in view of Rombach et al. (U.S. Patent No. 6,088,463, herein Rombach). Applicant respectfully traverses these rejections for the reasons detailed below.

Claims 3-10, 13, 14, 16, 17, and 34 all depend from amended independent claim 1 and therefore include the features of claim 1.

The cited references of Garcia, Wang, Sun, and Rombach have been considered, but each of these secondary references fails to cure the deficiencies of Madaffari as discussed above with respect to amended independent claim 1. More specifically, the cited references of Garcia, Wang, Sun, and Rombach fail to disclose, teach, or suggest a preamplifier circuit for amplifying the electrical signal from an electret condenser microphone transducer including “a series capacitor between an electret condenser microphone transducer output and a DC input of an amplifier,” “wherein the capacitor reduces current leakages by blocking a

DC path from the electret condenser microphone transducer to the amplifier input,” as recited in amended independent claim 1.

Therefore, Applicant respectfully submits that dependent claims 3-10, 13, 14, 16, 17, and 34 all patentably distinguish over the cited references for at least the same reasons that amended independent claim 1 patentable distinguishes over the primary reference of Madaffari.

Therefore, Applicant respectfully submits that Madaffari, Garcia, Wang, Sun, and Rombach, either alone or in any proper combination, fail to disclose, teach, or suggest at least the above-emphasized features of independent claim 1. Therefore, Applicant respectfully requests that the rejection to independent claim 1 and claims 3-10, 13, 14, 16, 17, and 34 depending therefrom under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and allowance of each of claims 1, 3-10, 13-14, 16-17 and 34 in connection with the present application is earnestly solicited.

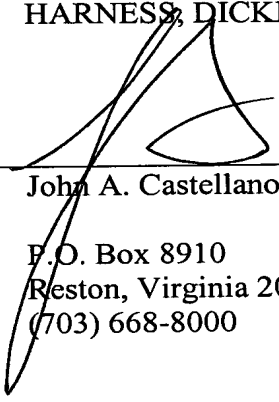
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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